

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Oversee
the Resource Adequacy Program, Consider
Program Refinements, and Establish
Annual Local and Flexible Procurement
Obligations for the 2016 and 2017
Compliance Years.

Rulemaking 14-10-010
(Filed October 16, 2014)

**NOTICE OF EX PARTE COMMUNICATION
OF COGENTRIX ENERGY POWER MANAGEMENT, LLC**

October 7, 2016

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Pursuant to Article 8 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure, Cogentrix Energy Power Management, LLC (“Cogentrix”)¹ hereby provides notice of the following ex parte communication in the above-referenced proceeding.

On October 4, 2016, from approximately 10:00 a.m. to 10:30 a.m., Greg Blue, Vice President, Asset Management, Cogentrix, Jeffrey S. Spurgeon, Vice President, Asset Management and M & A, Cogentrix, Jim McIntosh, consultant for Cogentrix and former Director of Grid Operations for the California Independent System Operator, and Steven F. Greenwald, outside counsel, met with Sepideh Khosrowjah, advisor to Commissioner Michel Peter Florio. The meeting took place at the Commission’s offices at 505 Van Ness Avenue in San Francisco, California.

The purpose of the meeting was to discuss Draft Resolution E-4806. During the course of the meeting, Mr. Blue expressed Cogentrix’s policy recommendations that the Commission should adopt terms for resource adequacy agreements of longer than one year, preferably in the five to seven year range, and that the Commission recognize the greater value that truly flexible

¹ On September 23, 2016, Cogentrix filed a Motion for Party Status Cogentrix Energy Power Management, LLC in this proceeding (“Cogentrix Motion”). Cogentrix is submitting this Notice of Ex Parte Communication on the assumption that the Cogentrix Motion will be granted.

generators provide the system. As these are topics presently before the Commission in this proceeding, Cogentrix is submitting this notice of ex parte communication in this proceeding.

The meeting was initiated by Cogentrix. In addition to oral communications, a written handout was used during the meetings. Attached is a copy of the written material that Cogentrix provided at the meeting.

Respectfully submitted,

/s/

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Dated: October 7, 2016



**Draft Resolution E-4806
Approving SDG&E AL 2902-E
Cogentrix Response**

October 2016

Overview of Cogentrix

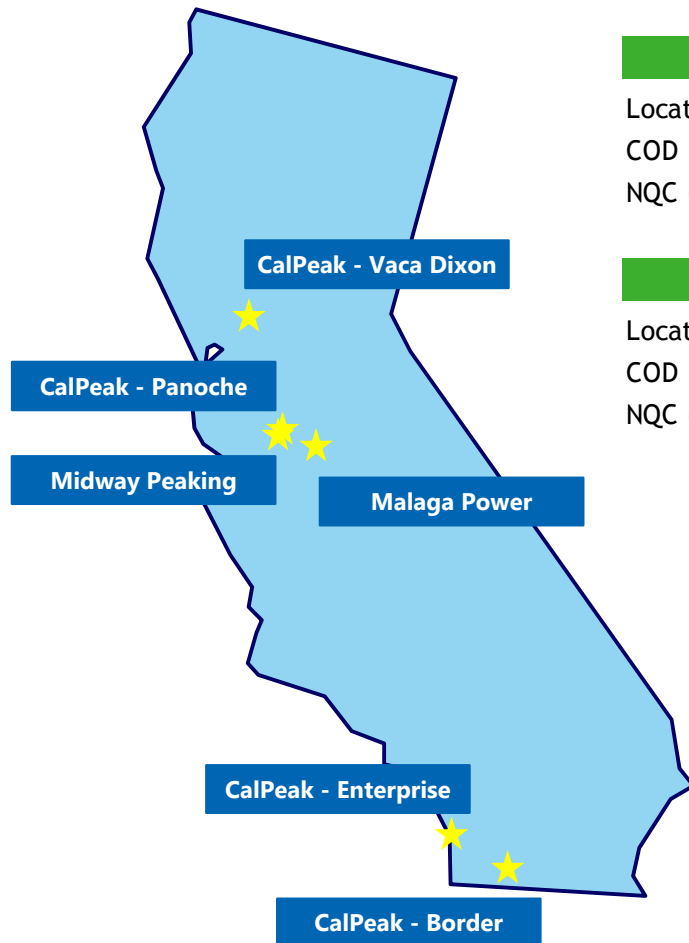
Cogentrix Energy Power Management, LLC

- Founded in Charlotte, NC in 1983
- Cogentrix's management is a stable, long-tenured team with over 300 years of combined industry experience
- Current portfolio consists of over 6,500 MW of natural gas fired power plants in 9 states
- California portfolio consists of 6 peaking plants with a capacity exceeding 400 MW

The Carlyle Group

- Parent Company of Cogentrix
- One of the world's largest multi-product global alternative asset management firms
- Purchased Cogentrix in December 2012
- Carlyle acquired CalPeak and Midway in September 2013, and the Malaga Peaking Plant in April 2015

Portfolio of California Fast-Start Peakers



Merchant Facilities

CalPeak - Border		CalPeak - Enterprise	
Location	San Diego, CA	Location	Escondido, CA
COD	October 2001	COD	October 2001
NQC (MW)	48	NQC (MW)	48

CalPeak - Panoche		CalPeak - Vaca Dixon	
Location	Firebaugh, CA	Location	Vacaville, CA
COD	December 2001	COD	June 2002
NQC (MW)	48	NQC (MW)	48

Malaga Power	
Location	Fresno, CA
COD	September 2005
NQC (MW)	96

Contracted Facilities

Midway Peaking	
Location	Firebaugh, CA
COD	May 2009
NQC (MW)	111

Advice Letter 2902-E Protest Summary

- Cogentrix has three-year RA contracts in place at Enterprise and Border expiring 12/31/2016
- CalPeak has actively been working to assist SDG&E fulfill its 2017 RA requirement
- SDG&E's June 9 Advice Letter requested CPUC approval of a bi-lateral contract
- CalPeak filed a protest on June 28, 2016, largely on competitive grounds

Issue	Description
Transparency, competition	<ul style="list-style-type: none">• SDG&E failed to hold a competitive process, undermining the integrity of the RA market• Preferential treatment given to a specific (inefficient) generator
Least cost/best fit	<ul style="list-style-type: none">• SDG&E does not provide any evidence that the Encina contract is in the best interest of the ratepayers
Once-through Cooling	<ul style="list-style-type: none">• SDG&E essentially gave preference to OTC unit

In any event, efficient, fast start peakers should be favored over inefficient OTC plants, not the other way around, and a "trust us" justification only raises more questions

Cogentrix Request Regarding Draft Resolution

- Request the Advice Letter and order SDG&E to compare the Encina contract with the offers they received in response to their 2017 RA RFP with respect to price, flexibility and environmental impact
- If Commission approves this Bilateral 2017 RA Contract it should condition its approval on ordering SDG&E to hold RFO next year for 2018 - 2022 RA Five Year Contracts
- This condition would be an insurance policy for reliability concerns regarding delays or long lead times for:
 - Carlsbad Generating Plant
 - Mesa 500 kV Loop-in
 - Sycamore-Penasquitos 230 kV transmission line
 - Regionalization of CAISO
 - IRP Implementation

Events Since Cogentrix Protest Filed

- Aug 1 - Cogentrix & Carlyle met with several Commissioner Advisors and one Commissioner regarding Protest to Advice Letter
- Aug 3 - SDG&E Issues 2017 Resource Adequacy Request for Proposals
 - Proposals Submitted September 1
 - Shortlist September 16
 - Total lack of transparency regarding relationship between Encina bilateral and the RFO procurement amount
 - No mention of the RFO in the Draft Resolution
- Aug 29 - CEC IEPR Workshop on SoCal Electricity Reliability
 - CEC's Local Capacity Annual Assessment Tool (LCAAT) indicates that the San Diego Subarea (even with addition of Carlsbad) is short generation 9 out of the next 10 years
 - CEC Staff Report suggested two mitigation options 1) Pool of permitted plants, 2) Extend life of Encina beyond OTC closure date
 - Reports by CEC, CAISO, SCE & SDG&E indicate that due to delays with the new Carlsbad generating plant and two major transmission upgrades that there will be need to delay the closing of Encina plant
- Sept 23 – CPUC issues Draft Resolution approving NRG/Encina Bilateral Contract

LCAAT 2016 Baseline Results for San Diego Subarea w/o CalPeak Plants

Table B-5: Baseline Results for San Diego Subarea

	Variables (Summer Peak MW)	Source	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
San Diego Sub-Area													
	Base Load Forecast	2014 IEPR Up	5324	5372	5453	5529	5602	5654	5698	5742	5778	5814	5850
less	Load Forecast Adjustment (positive is a decrease)		0	0	0	0	0	0	0	0	0	0	0
less	AAEE	2014 IEPR Up	39	78	118	146	181	213	245	280	319	358	401
less	Preferred EE	ISO 14/15 TPP	0	0	0	3	7	10	13	17	20	18	16
less	Preferred BTM Energy Storage	ISO 14/15 TPP	0	0	0	0	26	26	26	26	26	26	26
less	Preferred BTM DG	ISO 14/15 TPP	0	0	0	0	0	0	0	0	0	0	0
=	Managed Load Forecast		5285	5294	5335	5380	5389	5405	5414	5420	5413	5413	5407
	Gross Local Capacity Requirements		3382	3430	4011	4227	3963	3937	4129	4187	4248	4309	4375
less	T-system Upgrade Impacts		(240)	(240)	(840)	(1086)	(846)	(846)	(846)	(846)	(846)	(846)	(846)
less	LCR Change from Demand Adjustments	input value	(39)	(78)	(118)	(149)	(213)	(249)	(284)	(322)	(365)	(401)	(443)
=	Adjusted LCR Base		3103	3112	3054	2992	2904	2842	2999	3018	3037	3062	3086
less	OTC Non Nuclear	ScenTool	965	965	859	0	0	0	0	0	0	0	0
less	OTC Nuclear	ScenTool	0	0	0	0	0	0	0	0	0	0	0
less	Hydro	ScenTool	44	44	44	44	44	44	44	44	44	44	44
less	Solar	ScenTool	37	37	37	37	37	37	37	37	37	37	37
less	Wind	ScenTool	5	5	5	5	5	5	5	5	5	5	5
less	Geothermal	ScenTool	0	0	0	0	0	0	0	0	0	0	0
less	Biomass	ScenTool	21	21	21	21	21	21	21	21	21	21	18
less	Cogeneration	ScenTool	135	135	135	135	135	154	154	154	154	154	154
less	Pump	ScenTool	0	0	0	0	0	0	0	0	0	0	0
less	Non OTC Peaker	ScenTool	513	626	513	513	513	513	513	513	513	513	513
less	Non OTC Thermal	ScenTool	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218	1218
less	Various and Unknown	ScenTool	1	1	1	1	1	1	1	1	1	1	1
less	Incr. Peaker Additions	Picker AD	0	0	308	808	808	808	808	808	808	808	808
less	Incr. Thermal Additions	D14-03-004	0	0	0	0	0	0	0	0	0	0	0
less	Incr. RPS Calc - Renew	14/15 Port	0	0	0	0	0	0	0	0	0	0	0
less	Incr. RPS Calc - DG	14/15 Port	0	25	36	37	41	45	52	53	64	64	64
less	Storage Additions	D14-03-004	0	0	0	0	0	0	0	0	0	0	0
less	DR Program Capability/Preferred DR Capab	multiple	19	19	19	20	20	21	21	21	21	21	21
=	Total Resources Base		2956	3094	3195	2838	2842	2866	2874	2875	2886	2886	2883
=	Resource Need (Surplus/Deficit) Base		(147)	(18)	141	(154)	(62)	24	(126)	(144)	(152)	(176)	(203)

Border & Enterprise - - (99) (99) (99) (99) (99) (99) (99) (99) (99) (99)

Adj. Resource Need (Surplus/Deficit) Base (147) (18) 42 (253) (161) (75) (225) (243) (251) (275) (302)

Market Commentary: Widely Recognized Need for Flexible Resources

To reliably operate the green grid, the CAISO states they will require flexible resources which have ability to perform the following functions¹:

- Sustain upward or downward ramp;
- Respond for a defined period of time;
- Change ramp directions quickly;
- Store energy or modify use;
- Meet expected operating levels;
- Start with short notice;
- Start and stop multiple times per day; and
- Accurately forecast operating capability

Market & Scholarly Commentary^{1,2,3,4}

"As the share of renewable generation increases, so will the requirements for increased back-up capacity and serious stresses will be put on the energy system unless the relationship between fast-ramping and renewable technologies are appropriately acknowledged"

- National Bureau of Economic Research (July 2016)

"To ensure reliability under changing grid conditions, the ISO needs resources with ramping flexibility and the ability to start and stop multiples times per day"

- CAISO (2016)

"As solar's grid penetration increases, its value declines. Power system planners will need to develop and refine methodologies for assessing this value...They will also need to ensure that other units are sufficiently compensated for the backup capacity that they provide"

- IHS Energy (August 2016)

"The (California) Energy Commission recommended (2012) a forward procurement mechanism for 3-5 years ahead to provide revenue streams for the flexible capacity resources needed to integrate renewable sources and allowing all integration resources – such as demand response, energy storage, and flexible natural-gas fired power plants – to compete on a level playing field. There has been little progress on this recommendation."

- CEC (February 2016)

Sources:

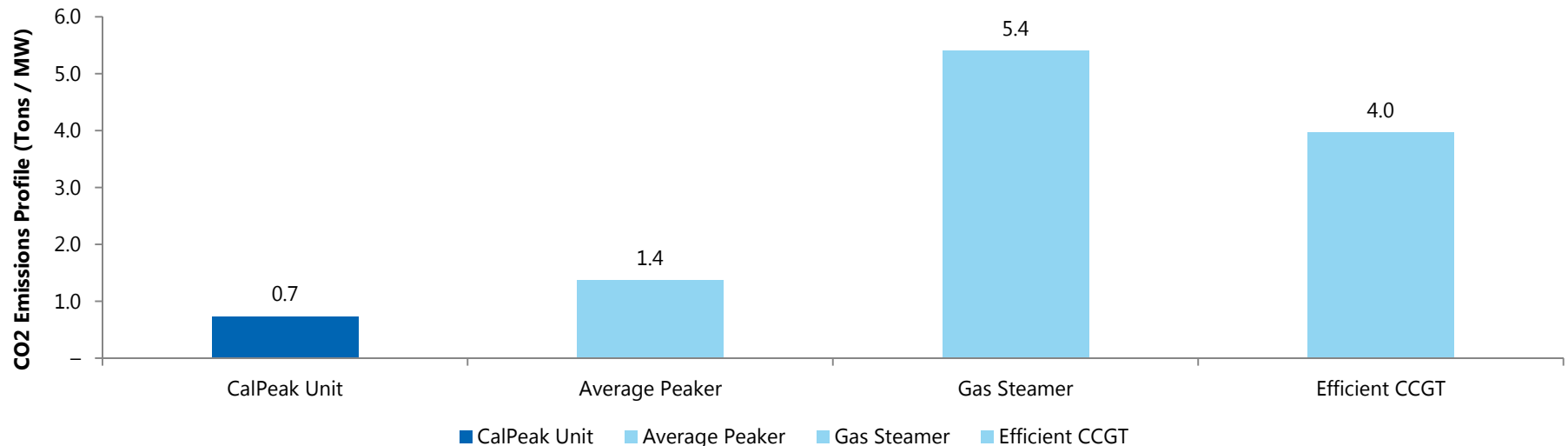
1. http://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf
2. <http://www.nber.org/papers/w22454>
3. IHS Energy: Power and Renewables – Pushing Solar's Boundaries in California (August 2016)
4. California Energy Commission: 2015 Integrated Energy Policy Report

Fast-Start Peakers: Flexibility and Emissions Advantage

CalPeak is currently configured to be one of the most flexible, fast-ramping and environmentally friendly generating fleets in California

Operating Parameter	CalPeak Unit	Average Peaker	100 MW Gas Steamer	500 MW Efficient CCGT
Start Time	5 minutes ¹	15 minutes	8 hours	5 hours
Maximum Starts	4 per day	2 per day	1 or 2 per day	1 or 2 per day
Minimum Run Time	1 hour	2 hours	4 to 6 hours	4 to 6 hours
Shutdown Time	5 minutes	7 minutes	1.5 hours	30 minutes
Ancillary Services	Synchronous condensing ² , Spinning and Non-Spinning Reserve	Non-spinning reserve	N/A	Spinning and Non-Spinning Reserve, Regulation

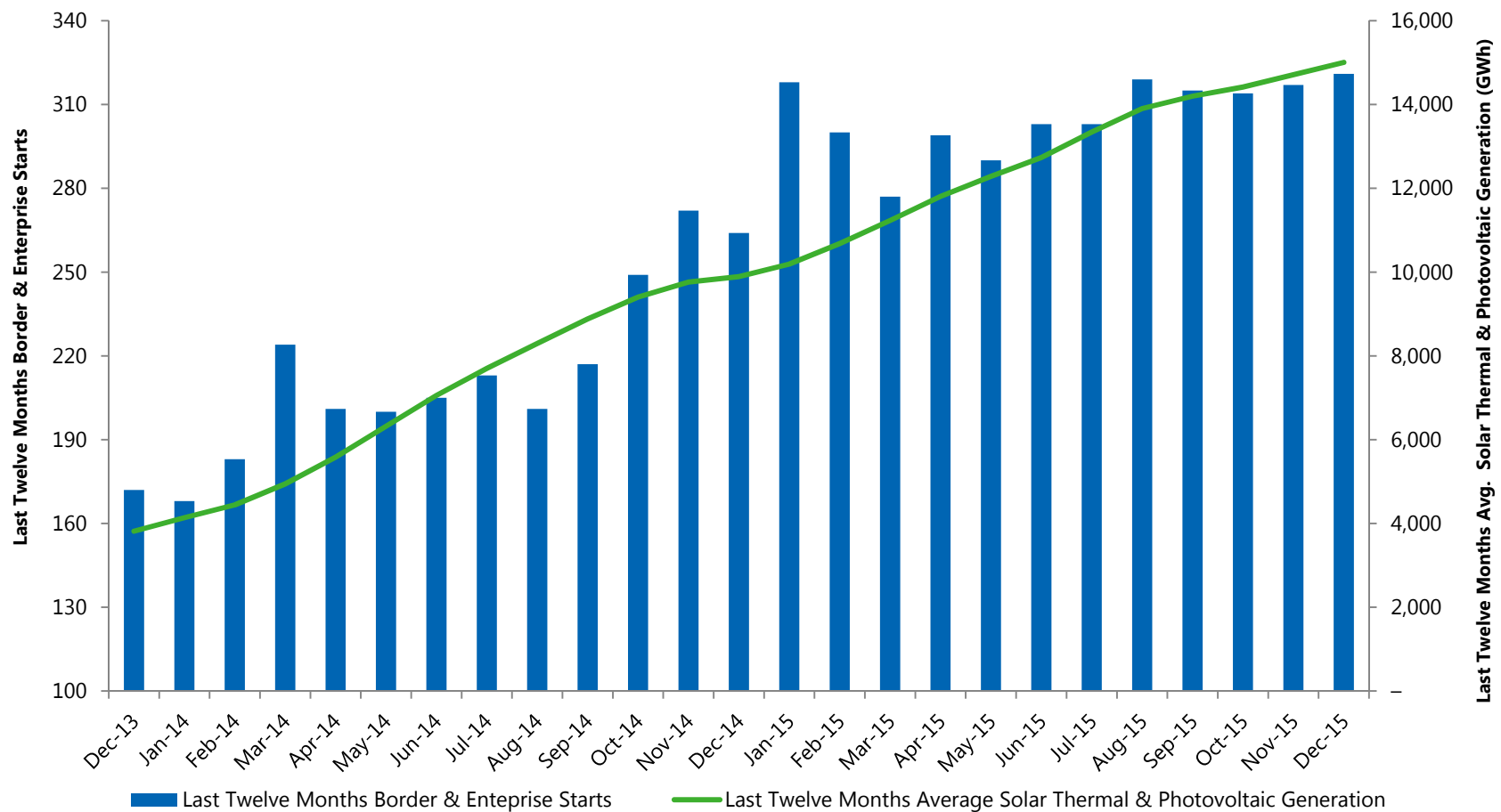
Minimum Run Time CO2 Emissions Profile (Tons / MW)³



1. CalPeak units are synchronized to the grid in 5 minutes
2. No market for voltage in CAISO; would require minor plant modifications to be remotely operable
3. Minimum run time includes shutdown time

Fast-Start Peakers: San Diego Units Historical Trend

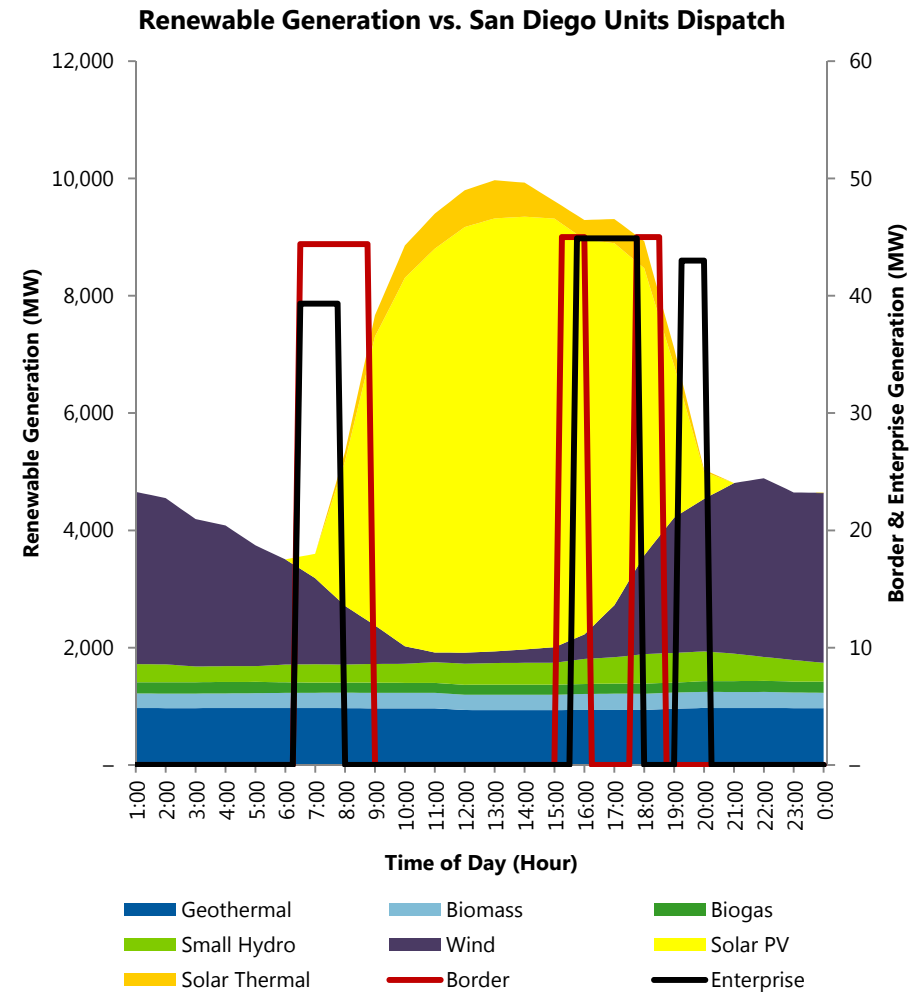
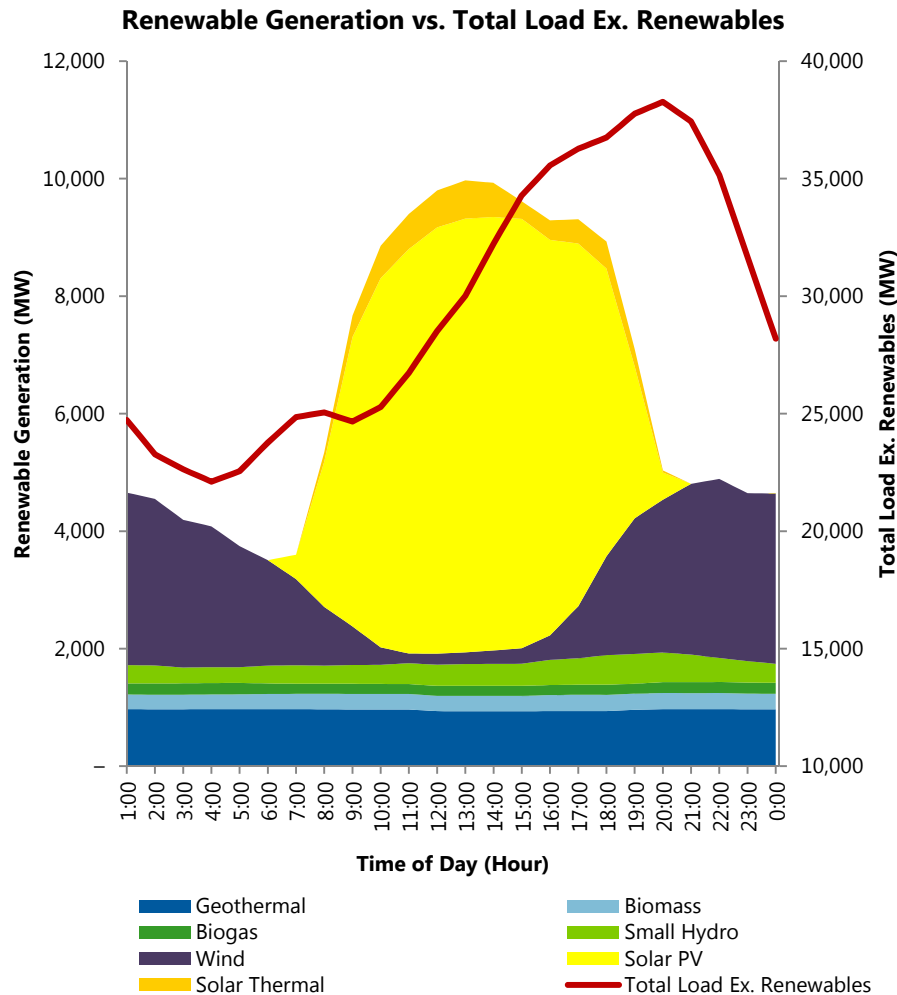
- CalPeak's San Diego units have been reliable generators contributing to grid stability dating back to the energy crisis
- As renewable generation has expanded, the units have seen rapidly increasing unit starts, highly correlated to renewable expansion



Source: EIA, historical Border & Enterprise dispatch data

Fast-Start Peakers: Impact of Renewable Generation in California

As load net of renewable production spikes, particularly in the evening, our California assets ramp up to meet grid needs



Source: CAISO Renewable Watch data and actual Border & Enterprise dispatch from July 26, 2016.